

Researchers, environmentalists 'winning battle' for Tahoe's clarity

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Water quality was one of three components of focus at the Lake Tahoe Summit, attended by Sens. Dianne Feinstein, D-Calif., John Ensign, R-Nev., and representatives of both Nevada and California governors.

A panel composed of Barry Klein, vice chancellor for Research, University of California, Davis; Alexis Strauss, director of the Water Division, Environmental Protection Agency; Harold Singer, executive officer, Lahontan Regional Water Quality Control Board; and Allen Biaggi, director of the Nevada Department of Conservation and Natural Resources spoke briefly on water quality.

The water quality briefing paper supplied at the forum said top issues were "increased algae and fine sediment, the growth and proliferation of algae and aquatic weeds, impacts to human and aquatic health from the transport of chemical pollutants and human activities in the watershed and effects from the sewage spill."

Since 1968, clarity in the lake has been reduced an average of 1 foot of depth per year.

To measure the clarity, a white disk is lowered into the water until it disappears, then it is brought up to where it is visible. Its depth is halfway between where you can see the disk and where it disappears, this provides the Secchi numbers used in discussions about the loss or gain of clarity.

According to the UC. Davis Tahoe Environmental Research Center, the lake's clarity in 1968-71 was an average of 97 feet, and from 2001-04, it was 74 feet.

"There is an impact on business - businesses are an active participant, the beauty of the lake is the reason for tourism," Feinstein said of water and air quality and its interface with Tahoe's economy.

The Lake Tahoe Clarity Model, put together by UC Davis and explained in a display along the boardwalk on Commons Beach, links suspended matter characteristics to clarity.

It identifies links including lake circulation, the water's response to nutrients and sediments and the process of predicting clarity from pollutant load.

Algae growth is stimulated by nutrients, and fine suspended sediments from erosion and watershed sources, adversely affecting clarity.

The declining clarity is caused by 60 percent sediment, 25 percent algae and roughly 15 percent dissolving matter.

Efforts to improve the runoff of pollutants from vehicles in and around the lake, and halt the neglect of the watershed and tributary sediment will help the lake regain its clarity, according to researchers.

The emphasis on improving water quality is part of the 20-year vision for Lake Tahoe and its communities called Pathway 2007. Because overall ecosystem health in the basin is indicated by water quality and clarity, the success of Pathway 2007 will also correlate with basin's ecological health.

"These are things that bind us together, water quality, ecosystems, health of the forest and how we move together," chairman of the Washoe Tribe Brian Wallace said. "The quality of the forest and water affects us."

